

AMENDMENTS TO THE ABSTRACT

Please delete the section entitled “ABSTRACT OF THE DISCLOSURE” in its entirety and substitute the following section therefor:

ABSTRACT OF THE DISCLOSURE

A microprocessor apparatus is provided, for performing a cryptographic operation. The microprocessor apparatus includes an x86-compatible microprocessor that has fetch logic, a cryptography unit, and an integer unit. The fetch logic is configured to fetch an application program from memory for execution by the x86-compatible microprocessor. The application program includes an atomic instruction that directs the x86-compatible microprocessor to perform the cryptographic operation. The atomic instruction has an opcode field and a repeat prefix field. The opcode field prescribes that the device accomplish the cryptographic operation as further specified within a control word stored in a memory. The repeat prefix field is coupled to the opcode field. The repeat prefix field indicates that the cryptographic operation prescribed by the atomic instruction is to be accomplished on a plurality of blocks of input data.